

CLAIMS

What is claimed is:

1. A pump assembly for pumping fluid comprising:
a motor having a rotatable shaft;
an eccentric positioned on said shaft;
a first pump disposed on a first side of said shaft and driven in pumping motion by said eccentric during rotation of said eccentric about said shaft; and
characterized by
a second pump disposed at an end of said shaft and driven in pumping motion by said shaft.
2. The pump assembly of claim 1 wherein said first pump is a piston pump and said second pump is a gerotor pump.
3. The pump assembly of claim 1 including a first fluid line extending from an outlet of one of said first and second pumps to an inlet of the other of said one of first and second pumps.
4. The pump assembly of claim 3 wherein said first fluid line extends from an outlet of said second pump to an inlet of said first pump.
5. The pump assembly of claim 1 further comprising:
a master cylinder assembly having a master cylinder and a reservoir; and
a second fluid line extending between said reservoir and an inlet of said second pump.
6. The pump assembly of claim 5 further comprising:
a first fluid line extending from an outlet of said second pump;
a third fluid line extending from said first fluid line adjacent said outlet to a position along said second fluid line between said reservoir and said inlet;
and

a pressure bypass valve moveable from a closed position to an open position in response to a predetermined fluid pressure in said first fluid line.

7. The pump assembly of claim 1 including a third pump disposed on a side of said shaft opposite of said first pump and driven in pumping motion by said eccentric.

8. The pump assembly of claim 1 including a first fluid line extending from an outlet of said second pump to a first inlet of said first pump and a third inlet of said third pump.